



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

September 29, 2007

Claire C. Batac
Alaska Coastal Management Program
302 Gold Street, Suite 202
P.O. Box 111030
Juneau, Alaska 99811-1030

Re: APN-CO7-0-K76-002
Gastineau Channel

Dear Ms. Batac,

The National Marine Fisheries Service (NMFS) has reviewed the above referenced application from Mr. Jeff White for Cultural Preservation, Inc. to install one 4-pile dolphin and one 3-pile dolphin to secure an existing 24-foot by 193-foot long vessel float for mooring ships in Gastineau Channel that will be relocated so that it is facing perpendicular to the shore.

Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires NMFS to make Essential Fish Habitat (EFH) Conservation Recommendations regarding State agency actions that would adversely affect EFH. Such recommendations may include measures to avoid, minimize, mitigate or otherwise offset adverse effects. The Alaska Department of Fish and Game's Anadromous Waters Catalog identifies several anadromous fish streams in the vicinity of Gastineau Channel. These streams support runs for all five species of Pacific salmon (chinook, coho, chum, sockeye and pink). Juvenile salmon use nearshore habitat during spring and early summer for feeding and predator avoidance prior to migration out to sea. The NMFS's Nearshore Fish Atlas indicates the presence of important forage fish species in Gastineau Channel that include Pacific herring, surf smelt, and Pacific sand lance.

In accordance with Section 305(b)(4)(A) of the MSA, NMFS makes the following EFH Conservation Recommendations:

1. No in-water work should be permitted from April 1 through June 15 of any year to protect out-migrating salmon.
2. Piles that are surface or pressure-treated with creosote or treated with pentachlorophenol should be prohibited. Creosote contains numerous constituents that are toxic to aquatic organisms including polycyclic aromatic hydrocarbons (PAHs), phenolic compounds, and nitrogen, sulfur, or oxygenated heterocyclics (Poston, 2001). Leaching of these constituents continues throughout the life of the wood and has been associated with the development of tumors, immune system suppression, decreased fecundity and abnormal embryonic development of fish. Galvanized steel pilings are a less damaging option the applicant should consider.



3. Any wood that comes in contact with water should be treated with waterborne preservatives approved for use in aquatic and/or marine environments. These include, but are not limited to: Chromated Copper Arsenic (CCA) Type C, Ammoniacal Copper Zinc Arsenate (ACZA), Alkaline Copper Quat (ACQ), Copper Boron Azole (CBA) or Copper Azole (CA). Use wood treated with waterborne preservatives in accordance with Best Management Practices developed by the Western Wood Preservers Institute. Treated wood should be inspected before installation to ensure that no superficial deposits of preservative material remain on the wood.
4. Drive piles with a vibratory hammer. Pile driving can generate intense underwater sound pressure waves that can injure or kill fish. Vibratory hammers produce less intense sounds than impact hammers (NMFS 2005). Fish have been observed to avoid sounds similar to those produced by vibratory hammers and to remain within the field of harmful sound associated with an impact hammer (Dolat 1997). If an impact hammer is required because of substrate type or the need for seismic stability, piles should be driven as deep as possible with a vibratory hammer before the impact hammer is used.
5. Drive piles during low tide if they are located in intertidal areas. Potentially harmful sound pressure waves are attenuated more rapidly in shallow water than in deep water (Rogers and Cox 1988).

If you have any questions regarding our recommendations for this project, please contact Timothy Wilkins at 907-586-7643 or timothy.wilkins@noaa.gov.

Sincerely,



Robert D. Mecum
Acting Administrator, Alaska Region

cc: Applicant
John Leeds (COE)
Krauss, Brenda K (DEC) <brenda.krauss@alaska.gov>*
Timothy, Jackie L (DNR) <jackie.timothy@alaska.gov>*
Dunker, John A (DNR) <john.dunker@alaska.gov>*
Donohue, Joseph K (DNR) <joe.donohue@alaska.gov>*
susan.walker@noaa.gov*
teri_camery@ci.juneau.ak.us*

* e-mail PDF

Literature cited

Poston, Ted. 2001. *Treated Wood Issues Associated with Overwater Structures in Marine and Freshwater Environments*. White Paper, Washington Department of Fish and Wildlife.
<http://wdfw.wa.gov/hab/ahg/overwatr.htm>

Dolat, S.W. 1997. Acoustic measurements during the Baldwin Bridge Demolition (final, dated March 14, 1997). Prepared for White Oak Construction by Sonalysts, Inc., Waterford, CT/34 pp + appendices.

National Marine Fisheries Service. 2005. Final Environmental Impact Statement, Essential Fish Habitat Identification and Conservation in Alaska, Vol. 2, Appendix G; National Marine Fisheries Service, Department of Commerce. April, 2005.

Rogers, P.H. and M. Cox. 1988. Underwater sound as a biological stimulus. pp. 131-149. In *Sensory biology of aquatic animals*. Atema, J, R.R. Fay, A.N. Popper, and W.N. Tavolga, eds. Springer-Verlag. New York.